

# **Water Quality Standards Regulation (9 VAC 25-260) Rulemaking: Bacteria, Ammonia, Cadmium, Human Health Criteria**

**Department of Environmental Quality  
Regulatory Advisory Panel Meeting #2**

**May 9, 2016**

**DEQ – Piedmont Regional Office**

# Agenda:

- **Introductions**
- **Ammonia Criteria**
  - **Issues & Implementation Options**
  - **Discussion**
- **Cadmium**
  - **Discussion**
- **Wrap-Up**

# Ammonia Criteria

| Issues Raised in Comments   | Options to Address   |
|---|--|
| Capital and operating costs for compliance  | <ul style="list-style-type: none"> <li>• State financial assistance</li> </ul>   |
| Relationship to other current or future nutrient criteria; coordinate multiple program issues | <ul style="list-style-type: none"> <li>• Phased retrofits</li> <li>• Integrate design to also cover freshwater nutrient criteria or revised Ches Bay waste load allocations</li> </ul> |
| Bring VPDES compliance schedule requirements in line with EPA's regulations                   | <ul style="list-style-type: none"> <li>• Extended compliance schedules</li> <li>• Variance(s)</li> </ul>   |

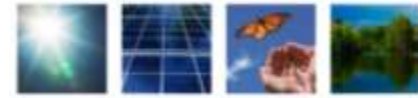
# Ammonia

## Implementation Options

- Compliance schedules
  - Currently, within the permit duration (5 years)
  - Federal NPDES Regs doesn't specify other than 'soon as possible'
- Variances
  - likely based on "*widespread social and economic impact*"

# Options for Compliance Schedule Modifications

- If consensus can be reached, a secondary action could propose amending the VPDES Permit Regulation to delete current *“length of permit”* restriction
  - Pros?
  - Cons?
- If preference is to amend WQ Standards Regulation, what language to propose
  - Specific to ammonia; controls in lieu of VPDES Reg?
  - Include factors to consider when setting schedules?
  - Categorical exclusion(s) for certain types/sizes of discharge?



## Other Relief that May Apply

- Recalculation of criteria – mussels absent
- Calculation of site-specific discharge limits (pH and temperature dependent)
- Others??

# EPA's Updated Water Quality Criteria for Cadmium

| Freshwater Criterion | Acute                | Chronic              |
|----------------------|----------------------|----------------------|
|                      | ug/L at hardness 100 | ug/L at hardness 100 |
| Virginia (1984)      | 3.9                  | 1.1                  |
| EPA (2001)           | 2.0                  | 0.25                 |
| EPA (2016)           | 1.8                  | 0.72                 |

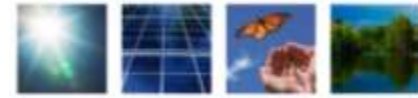
# Updated Criteria for Cadmium: With and without extra protection for rainbow trout

| Criterion   | Acute                | Chronic                        |
|---|----------------------|--------------------------------|
|   | ug/L at hardness 100 | ug/L at hardness 100           |
| EPA (2016) ; criterion lowered to protect rainbow trout     | 1.8                  | 0.72                           |
| EPA (2016) ; criterion NOT lowered to protect rainbow trout | 2.7                  | 0.72<br>(no change to chronic) |



# EPA's Updated Water Quality Criteria for Cadmium (Estuarine)

| Estuarine Criterion | Acute (ug/L) | Chronic (ug/L) |
|---------------------|--------------|----------------|
| Virginia            | 40           | 8.8            |
| EPA 2016            | 33           | 7.9            |



# **June Meeting: Focus on Bacteria Criteria and Human Health Criteria Updates**